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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,603	10/17/2003	Don Zoran	K8000275US	9119

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VALENTINE A. COTTRILL
SUITE 1020 50 QUEEN STREET NORTH
KITCHENER, ON N2H6M2
CANADA

EXAMINER

CADUGAN, ERICA E

ART UNIT	PAPER NUMBER
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3722

DATE MAILED: 04/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/686,603

Applicant(s)

ZORAN, DON

Examiner

Erica E Cadugan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-6,9,13-15 and 17-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4-6,9,13-15 and 17-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/11/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Drawings

2. A replacement drawing sheet including Figures 1A and 1B was received on February 1, 2005. This drawing sheet is approved.

Specification

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

The specification does not provide antecedent basis that “each said component is rigid and substantially non-resilient” as set forth in claims 4, 13, and 21.

The specification does not provide antecedent basis that “each said component has a predetermined stiffness” as set forth in independent claims 13 and 18

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 4-6, 9, 13-15, 17, and 18-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled

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in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The specification as originally filed does not appear to support that “each said component is rigid and substantially non-resilient” as set forth in claims 4, 13, and 21.

The specification as originally filed does not appear to support that “each said component has a predetermined stiffness” as set forth in independent claims 13 and 18

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 4-6, and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 4, “each side constituent” lacks sufficient antecedent basis in the claim (no “side” constituents previously claimed).

Claim Rejections - 35 USC § 102

8. Claims 4-6, 13-15, 18-19, and 21-22, those of which were rejected under 35 USC 112 above are as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent Application Publication 2002/0081956 to Bennett et al.

Bennett et al. teaches a machine tool in the form of a polishing device (see paragraph 0006 for example). An isometric view of such a polishing device is shown in Figure 1, wherein 60 is a multi-head carousel including a plurality of carrier heads 100 on which workpieces 10 to be polished are mounted (see Figure 1). Also, on tabletop 23 are located a plurality of polishing stations 25a-c, each mounting a circular polishing pad 32 (Figure 1).

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Of particular interest is the embodiment of Bennett's invention shown in Figure 3, which shows a detailed cross-sectional view of a carrier head as in Figure 1, and including a retaining ring (see paragraphs 0020-0022).

Note that the carrier heads 100 can be considered "components" as set forth in the claims. Broadly speaking, these carrier heads or "components" must "cooperate with" each other in order to function properly to ensure polishing of the workpiece, e.g., at least cooperate by operating in the proper sequence, etc.

As shown in Figure 3, note that rigid rings 203 and 184 are considered "constituent parts", between which, in what is broadly considered a "slot" or "aperture", is sandwiched planar PVC damping material 200 (paragraphs 0041 and 0032).

Re the rigidity of the constituent parts, note that paragraph 0056 explicitly teaches that the "constituent parts" 184 and 203 may be "manufactured from aluminum or any other material that provides a suitable amount of stiffness to the retaining ring", and thus the "constituent parts" 184 and 203 are thus considered to be "substantially rigid".

Note also that Bennett explicitly teaches that the provision of the dampening material (such as 200 as described previously) is for the purpose of reducing or dampening vibrations that would otherwise reduce the quality of the produced workpiece or that would damage the polishing apparatus (see paragraphs 0006, 0007-0010 and especially paragraphs 0031-0032 and 0041, for example).

Claim Rejections - 35 USC § 103

9. Claims 9, 17, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication 2002/0081956 to Bennett et al. as applied to claims 4, 13, and 18 above.

Bennett et al. teaches all aspects of the present invention as set forth in the above rejection based thereon. However, while Bennett does teach that the “constituent parts” 184 and 203 may be “manufactured from aluminum or any other material that provides a suitable amount of stiffness to the retaining ring” (paragraph 0056), and even provides an explicit teaching that the “constituent part” 184 may be made of steel (paragraph 0056), Bennett does not explicitly teach that both constituent parts 184 and 203 are made of “machined steel”.

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have made the “constituent parts” 184 and 203 out of whatever known material, including machined steel, of the desired stiffness as was desired or expedient (particularly since Bennett explicitly teaches that the materials of 184 and 203 can be made from “any” material “that provides a suitable stiffness to the retaining ring” and further teaches that 184 can be made of steel, and thus, it is implicit that steel provides a “suitable stiffness” or else it would not be an acceptable material for element 184 as described in paragraph 0056), since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416. See also Ballas Liquidating Co. v. Allied industries of Kansas, Inc. (DC Kans) 205 USPQ 331.

Response to Arguments

10. Applicant's arguments filed February 1, 2005 have been fully considered but they are not persuasive.

Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims (emphasis added) patentably distinguishes them from the references.

To the extent that any comment made can be applied to any claim language, Examiner will, as best understood, address Applicant's comments re the prior art.

Applicant has asserted (page 11 of the response) that in Applicant's invention, the sheets of damping material "are preferably between 0.01 inch and 0.02 inch thick". However, it is noted that the features upon which applicant relies (i.e., any particular thickness of the damping material sheet) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Additionally, Applicant appears to be asserting that the PVC damping material taught by Bennett cannot be considered the damping material of the present claims because (according to Applicant's remarks), the damping sheet of material 200 taught by Bennett is not "substantially non-resilient" as claimed in each of the independent claims. However, this is not persuasive.

Merriam-Webster's Collegiate Dictionary, 10th ed., defines resilient as follows:

characterized or marked by resilience : as a : capable of withstanding shock without permanent deformation or rupture b : tending to recover from or adjust easily to misfortune or change, **synonym** see ELASTIC

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Thus, “non-resilient” would be the opposite of that definition, i.e., **non-elastic**.

As described in paragraph 0054 of Bennett, “any material that does not rebound to its original shape when deformed may be used as a damping material”, and thus, broadly, such material could be considered “inelastic” or “substantially non-resilient”, by dictionary definition.

Even taking the guidance of present specification into account, the present specification just generically teaches that the material is “relatively non-resilient”, but does not quantify this resiliency or lack thereof. The only guidance that is provided in this regard is in terms of an exemplary material (see paragraph 0028 of the present specification), which teaches that in the preferred embodiment, the damping material is made of PVC, and in terms of the function of such material, which, as described on paragraph 0008, for example, “limits vibration of the machine tool during the machine tool function”.

Thus, furthermore, the material taught by Bennett meets the present claim language because 1) Bennett explicitly teaches that the material in question is PVC, and because 2) Bennett explicitly teaches that the material serves to limit vibration of the machine tool during the machine tool function (see paragraphs 0006, 0007-0010 and especially paragraphs 0031-0032 and 0041, for example).

Also, it is noted that Applicant has asserted that “[t]he Bennett et al. reference therefore does not disclose a structure having overall stiffness which is similar to that of the components of the invention”. However, firstly, it is noted that the claims do not set forth any structure having overall stiffness similar to that of the components (while claim 4, for example, sets forth “each side constituent part being substantially rigid” and “each said component is rigid”, it is noted that the fact that both parts are “rigid” does not inherently mean that their degree of rigidity is

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“similar” as apparently asserted). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Secondly, it is noted that the specification as originally filed does not provide support for the limitation that “each said component is rigid and substantially non-resilient” as set forth in the relevant claims as described in the above rejection of such claims under 35 USC 112, first paragraph.

It is further noted that the metal forming the constituent parts described by Bennett (described in the above rejection based thereon) is considered to be “rigid”.

It is noted that for applicant to attempt to not incorporate some quantifiable degree of rigidity or resilience into the parts in question would also be new matter.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection (such as the rejections under 35 USC 112) presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erica E Cadugan whose telephone number is (571) 272-4474.

The examiner can normally be reached on M-F, 7:30 a.m. to 5:00 p.m., alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris H. Banks can be reached on (571) 272-4419. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Erica E Cadugan
Primary Examiner
Art Unit 3722

eec
April 12, 2005